of the surface and defining an air gap between the fiducials and the surface, the support structure being translationally and rotationally movable; and

a visible light source generating a visible light beam traveling along the predetermined path and being indicative of a direction of approach to the subsurface target.

16. (Thrice amended) A system for defining a direction of approach to a subsurface target by illuminating a predetermined path with a visible light beam, the system comprising: an imaging machine having an image plane, the image plane having a plurality of degrees of freedom;

a support structure having at least one rotational and at least two translational degrees of freedom;

at least two fiducials mounted on the support structure and situated in the image plane, the support structure having a size and shape locating the fiducials outwardly of the surface and defining an air gap between the fiducials and the surface; and

a visible light source generating the visible light beam traveling along the predetermined path and illuminating the path as a direction of approach to the subsurface target.

26. (Thrice amended) A system for defining a direction of approach to a subsurface target by illuminating a predetermined path with a visible light beam in an imaging machine, the system comprising:

a support structure having a plurality of fiducials defining the predetermined path relative to the support structure, the support structure having a size and shape locating the fiducials outwardly of the surface and defining an air gap between the fiducials and the surface, the support structure being translationally and rotationally movable;

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a visible light source generating the visible light beam traveling along the path and illuminating the path as a direction of approach to the subsurface target; and

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a computer-based system for executing a set of procedures serving to select the predetermined path by determining an optimal path to the subsurface target.

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36. (Thrice amended) A method of determining a path to a subsurface target for use with imaging equipment having an image plane and an output device, the method comprising the steps of:

supporting a plurality of fiducials situated in the image plane, the fiducials being located outwardly of the surface in a manner defining an air gap between the fiducials and the surface and mounted to a support structure, the support structure being translationally and rotationally movable;

observing positions of images of the plurality of fiducials in the output device; and utilizing the positions of the images of the plurality of fiducials to determine the path to the subsurface target.

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46. (Thrice amended) A method of selecting a desired location of a subsurface target in an imaging machine having an output device for use with an apparatus comprising a plurality of fiducials carried by a support structure, the support structure being translationally and rotationally movable, wherein the method comprises the steps of:

positioning the support structure to locate the fiducials outwardly of the surface in a manner defining an air gap between the fiducials and the surface;